



ProStar Abrasives



Premium Quality Abrasives  
Grinding | Cutting | Blending | Finishing

# Abrasive Product Identification

Praxair utilizes an industry recognized color coding and identification system to help users identify the right bonded abrasive wheel for their application. There are also several other key identifiers to look for on a wheel; RPM's, wheel size, thickness and arbor size to ensure the correct product is used.

**Part Number** — PR551001

**ANSI Standard Marking System** — 1/4" A24R

**Max RPM (Revolutions Per Minute)** — MAX. RPM 13,300  
RPM MAX 13,300

**Safety Information** — Includes safety instructions in English, Spanish, and Chinese.

**Size of Wheel, Thickness, Arbor Size** — 4 1/2" x 1/4" x 5/8"-11 (115 x 6 x 16 mm)

**Wheel Type** — Type 27

**Application** — Metal grinding, Flat Rocking Discs, Flat Rocking Metal

**Color Coding**

Red	Ferrous Metal
Green	Concrete/Masonry
Gray	Aluminum
Blue	Stainless
Yellow	Pipeline Grinding
Orange	Ductile Pipe
Black	Asphalt

**Bar Code** — 72253 00503

**American National Standards Institute (ANSI)**

**A**

Primary grain used to make the wheel

A - Aluminum Oxide
TA - Treated Aluminum Oxide
C - Silicon Carbide
Z - Aluminum Zirconia

**24**

Size of the abrasive grain

	Coarse	Medium	Fine	Very Fine
16	30	100	220	
20	36	120	240	
24	46	180	280	
	60			

**B**

Hardness of the bond

Soft ————— Medium ————— Hard

A N R T Z

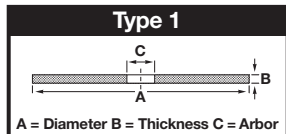
**BF**

Type of bond used

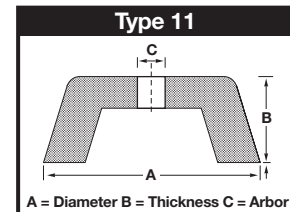
B - Resinoid
BF - Resinoid Reinforced
RF - Rubber Reinforced
S - Silicate
V - Vitrified

## Types of Bonded Abrasives

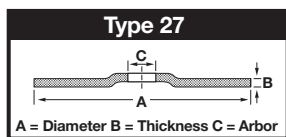
### Cutting & Edge Grinding



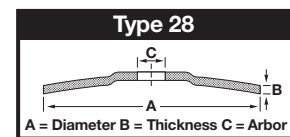
### Surface Grinding



### Angle Grinding & Edge Grinding



### Angle Grinding at Shallow Angles



## Common Application Problems

**Loading** Filling of the pores of the grinding wheel surface with the material being ground, usually resulting in decreased cutting rate and poor finish

- The wheel can be dressed to remove the loading temporarily.
- To prevent loading, select a wheel specifically designed for the application.



**Glazing** An extreme condition of loading on a grinding wheel caused by dull abrasive grain and a buildup of resin covering the grain

- The wheel can be dressed to remove the glaze temporarily.
- To prevent glazing, select a softer grade or coarser wheel.



## Abrasives

### Grinding

- Highly concentrated grain mix ensures an aggressive grind and smooth operation
- Specially formulated with high quality grains for long life
- Made using 3 layers of fiberglass reinforcement for durability

Part #	Description (in.)	Type	Metric Size (mm)
PRS51000	Grinding Wheel 4-1/2 x 1/4 x 7/8	A24R	115 x 6 x 22
PRS51001	Grinding Wheel 4-1/2 x 1/4 x 5/8-11	A24R	115 x 6 x 16
PRS51002	Grinding Wheel 5 x 1/4 x 7/8	A24R	125 x 6 x 22
PRS51003	Grinding Wheel 7 x 1/4 x 7/8	A24R	180 x 6 x 22
PRS51004	Grinding Wheel 7 x 1/4 x 5/8-11	A24R	180 x 6 x 16



### Pipeline

- Highly concentrated grain mix ensures an aggressive grind and smooth operation
- Specially formulated with high quality grains for long life
- Made using 3 layers of fiberglass reinforcement for durability

Part #	Description (in.)	Type	Metric Size (mm)
PRS51012	Pipeliner Cut/Grind Wheel 4-1/2 x 1/8 x 7/8	A24R	115 x 4 x 22
PRS51013	Pipeliner Cut/Grind Wheel 4-1/2 x 1/8 x 5/8-11	A24R	115 x 4 x 16
PRS51015	Pipeliner Cut/Grind Wheel 5 X 1/8 X 7/8	A24R	125 x 4 x 22
PRS51014	Pipeliner Cut/Grind Wheel 7 x 1/8 x 5/8-11	A24R	180 x 4 x 16



### Cutting

- Thin cut-off wheel designed for speed and feel
- Specially formulated with high quality grains for long life
- Reinforced with 2 layers of fiberglass for durability while maintaining flexibility

Part #	Description (in.)	Type	Metric Size (mm)
PRS51005	Cut-Off Wheel 4-1/2 x .045 x 7/8	A60T	115 x 1.2 x 22
PRS51006	Cut-Off Wheel 5 x .045 x 7/8	A60T	125 x 1.2 x 22
PRS51007	Cut-Off Wheel 6 x .045 x 7/8	A60T	150 x 1.2 x 22
PRS51009	Cut-Off Wheel 4-1/2 x .045 x 7/8	Type 27 DCW	115 x 1.2 x 22
PRS51010	Cut-Off Wheel 5 x .045 x 7/8	Type 27 DCW	125 x 1.2 x 22
PRS51011	Cut-Off Wheel 6 x .045 x 7/8	Type 27 DCW	150 x 1.2 x 22



### Flap Disc

- Made with high quality Zirconium grain
- Typical applications include: weld blending, slag removal, surface prep and edge beveling
- Free of Iron, Sulfur, and Chlorine for Contaminant-Free Grinding

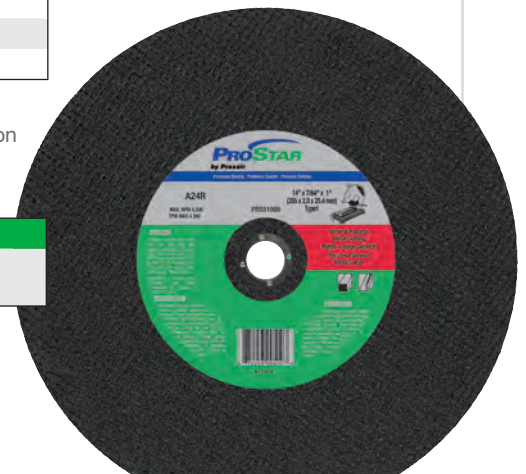
Part #	Description (in.)	Grit	Type	Metric Size (mm)
PRS52001	Flap Disc 4-1/2 x 7/8	Z40	Type 29	115 x 22
PRS52002	Flap Disc 4-1/2 x 7/8	Z60	Type 29	115 x 22
PRS52003	Flap Disc 4-1/2 x 7/8	Z80	Type 29	115 x 22
PRS52005	Flap Disc 4-1/2 x 5/8-11	Z40	Type 29	115 x 16
PRS52006	Flap Disc 4-1/2 x 5/8-11	Z60	Type 29	115 x 16
PRS52007	Flap Disc 4-1/2 x 5/8-11	Z80	Type 29	115 x 16
PRS52009	Flap Disc 5 x 7/8	Z40	Type 29	125 x 22
PRS52010	Flap Disc 5 x 7/8	Z60	Type 29	125 x 22
PRS52011	Flap Disc 5 x 7/8	Z80	Type 29	125 x 22
PRS52012	Flap Disc 7 x 5/8-11	Z40	Type 29	180 x 16
PRS52013	Flap Disc 7 x 5/8-11	Z60	Type 29	180 x 16
PRS52014	Flap Disc 7 x 5/8-11	Z80	Type 29	180 x 16



### Chop Saw

- Highly concentrated grain mix ensures an aggressive cut and smooth operation
- Specially formulated with high quality grains for long life
- Made using 2 full layers of fiberglass reinforcement for durability

Part #	Description (in.)	Type	Metric Size (mm)
PRS51008	Chop Saw Wheel 14 x 3/32 x 1 General Purpose	Type 1	355 x 2.8 x 25.4



## Quality, Availability, Value

With over 400 stores throughout the U.S. and Canada, Praxair provides a broad range of products, welding gases and equipment. You'll find quality equipment and gear from a variety of top-name manufacturers including Praxair's own *ProStar* brand of premium quality welding and cutting products.



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